

## ***Appendix 3-F***

### ***EXAMPLE SITE PLAN REVIEW CHECKLISTS***

**NOTE: Include a link to examples provided on the DEQ website.**

#### ***Table of Contents***

##### **Section Headings**

<b>3-F.1.0 INTRODUCTION</b>	<b>3-F-2</b>
<b>3-F.2.0 EXAMPLE CHECKLIST FOR AN PRELIMINARY STORMWATER MANAGEMENT SITE PLAN PREPARATION AND REVIEW</b>	<b>3-F-2</b>
<b>3-F.3.0 EXAMPLE CHECKLIST FOR A FINAL STORMWATER MANAGEMENT SITE PLAN PREPARATION AND REVIEW</b>	<b>3-F-4</b>

**3-F.1.0. INTRODUCTION**

Site design and plan review checklists provide general guidance for both the designer and plan reviewer. Many items listed on the checklists may not apply to any given design and it is therefore up to the designer to indicate items as “*not applicable*” or “*NA*” as appropriate. Similarly, the reviewer must be able to distinguish which items are required based on the local conditions or requirements and verify the status of those items. These checklists serve as a tool for providing the designer with the necessary information needed to develop an approvable plan, as well as for providing the plan review authority with a consistent review procedure.

**3-F.2.0. EXAMPLE CHECKLIST FOR AN *PRELIMINARY* STORMWATER MANAGEMENT SITE PLAN PREPARATION AND REVIEW****1. Applicant Information**

Initial/Preliminary Plan Submission Date \_\_\_\_\_  
 Project Name \_\_\_\_\_  
 Site Plan/Permit Number \_\_\_\_\_  
 Site Address \_\_\_\_\_  
 Applicant \_\_\_\_\_ Phone Number \_\_\_\_\_  
 Applicant Legal Address \_\_\_\_\_  
 Owner \_\_\_\_\_ Phone Number \_\_\_\_\_  
 Principal Designer \_\_\_\_\_ Phone Number \_\_\_\_\_  
 General Contractor \_\_\_\_\_ Phone Number \_\_\_\_\_

**2. Plan Status**

\_\_\_\_\_ Approved  
 \_\_\_\_\_ Not Approved

**Legend:**

✓ - Complete  
Inc. - Incomplete/Incorrect  
N/A - Not Applicable

**3. \_\_\_\_\_ Common address (with latitude and longitude coordinates or GPS position) and legal description of the site, including the tax reference number(s) and parcel number(s) of the property or properties affected.**


---



---



---

**4. Existing and proposed mapping and plans (recommended scale of 1" = 50', or greater detail), which illustrates the following at a minimum:**

\_\_\_\_\_ North arrow  
 \_\_\_\_\_ Legend  
 \_\_\_\_\_ Vicinity map  
 \_\_\_\_\_ Existing and proposed topography (minimum of 2-foot contours recommended)  
 \_\_\_\_\_ Property lines  
 \_\_\_\_\_ Perennial and intermittent streams  
 \_\_\_\_\_ Mapping of predominant soils from USDA soils surveys  
 \_\_\_\_\_ Boundaries of existing predominant vegetation, areas of the site to be protected from disturbance, and proposed limits of clearing and grading

- \_\_\_\_\_ Location and boundaries of natural feature protection and conservation areas, such as wetlands, lakes, ponds, aquifers, public drinking water supplies, and applicable setbacks, etc.)
- \_\_\_\_\_ Identification of any on-site or adjacent water bodies included on the Virginia 303(d) list of impaired waters
- \_\_\_\_\_ Current and proposed land use and location of existing and proposed roads, buildings, parking lots and other impervious areas
- \_\_\_\_\_ Location and description of any planned demolition of existing structures, roads, etc.
- \_\_\_\_\_ Location of existing and proposed utilities [e.g., water (including wells), sewer (including septic systems), gas, electric, telecommunications, cable TV, etc.] and drainage and other easements
- \_\_\_\_\_ Preliminary estimates of unified stormwater sizing criteria requirements
- \_\_\_\_\_ Preliminary identification and calculation of stormwater site design credits, if any apply
- \_\_\_\_\_ Preliminary selection and location of stormwater control measures
- \_\_\_\_\_ Location of existing and proposed conveyance systems, such as storm drains, inlets, catch basins, channels, swales, and areas of overland flow
- \_\_\_\_\_ Flow paths
- \_\_\_\_\_ Location of floodplain/floodway limits and relationship of site to upstream and downstream properties and drainages
- \_\_\_\_\_ Preliminary location of all contributing drainage areas and points of stormwater discharge, receiving surface waters or karst features into which stormwater discharges, the pre-development and post-development conditions for drainage areas, and the potential impacts of site stormwater on adjoining parcels
- \_\_\_\_\_ Note all critical areas on the plan, such as critical slopes.

**5. Hydrologic and hydraulic analysis, including the following:**

- \_\_\_\_\_ A hydrologic analysis for the existing (pre-development) conditions, including runoff rates, volumes, and velocities, showing the methodologies used and supporting calculations
- \_\_\_\_\_ A hydrologic analysis for the proposed (post-development) conditions, including runoff rates, volumes, and velocities, showing the methodologies used and supporting calculations
- \_\_\_\_\_ Hydrologic and hydraulic analysis of the stormwater management system for all applicable design storms
- \_\_\_\_\_ Preliminary sizing calculations for stormwater control measures, including contributing drainage areas, storage, and outlet configurations
- \_\_\_\_\_ Preliminary analysis of the potential downstream impacts/effects of the project, where necessary

**6. \_\_\_\_\_ Preliminary erosion and sediment control plan that, at a minimum, meets the requirements outlined in the Virginia Erosion and Sediment Control Regulations and Handbook**

**7. \_\_\_\_\_ Preliminary landscaping plans for stormwater control measures and any site reforestation or revegetation**

**8. \_\_\_\_\_ Preliminary identification of waiver/exception requests**

### 3-F.3.0. EXAMPLE CHECKLIST FOR A FINAL STORMWATER MANAGEMENT SITE PLAN PREPARATION AND REVIEW

#### 1. Applicant Information

Final Plan Submission Date \_\_\_\_\_  
 Project Name \_\_\_\_\_  
 Site Plan/Permit Number \_\_\_\_\_  
 Site Address \_\_\_\_\_  
 Applicant \_\_\_\_\_ Phone Number \_\_\_\_\_  
 Applicant Legal Address \_\_\_\_\_  
 Owner \_\_\_\_\_ Phone Number \_\_\_\_\_  
 Principal Designer \_\_\_\_\_ Phone Number \_\_\_\_\_  
 General Contractor \_\_\_\_\_ Phone Number \_\_\_\_\_

#### 2. \_\_\_\_\_ Signature and stamp of licensed professional consultant and owner certification

#### 3. Plan Status

\_\_\_\_\_ Approved  
 \_\_\_\_\_ Not Approved

#### Legend:

\_\_\_\_\_ ✓ - Complete  
 \_\_\_\_\_ Inc. - Incomplete/Incorrect  
 \_\_\_\_\_ N/A - Not Applicable

#### 4. \_\_\_\_\_ Common address and legal description of the site, including the tax reference number(s) and parcel number(s) of the property or properties affected.

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

#### 5. \_\_\_\_\_ A narrative that includes a description of current site conditions and proposed development and final site conditions, including proposed use of environmental site design techniques and practices, stormwater control measures, relevant information pertaining to long-term maintenance of these measures (see item #12 below), and a construction schedule.

#### 6. Existing and proposed mapping and plans (recommended scale of 1" = 50', or greater detail), which illustrates the following at a minimum:

\_\_\_\_\_ North arrow  
 \_\_\_\_\_ Legend  
 \_\_\_\_\_ Vicinity map  
 \_\_\_\_\_ Existing and proposed topography (minimum of 2-foot contours recommended)  
 \_\_\_\_\_ Property lines  
 \_\_\_\_\_ Perennial and intermittent streams  
 \_\_\_\_\_ Mapping of predominant soils from USDA soils surveys as well as the location of any site-specific test bore hole investigations that may have been conducted and information identifying the hydrologic characteristics and structural properties of soils used in the installation of stormwater management facilities  
 \_\_\_\_\_ Boundaries of existing predominant vegetation and proposed limits of clearing and grading

- \_\_\_\_\_ Location and boundaries of natural feature protection and conservation areas (e.g., wetlands, lakes, ponds, aquifers, public drinking water supplies, etc.) and applicable setbacks (e.g., stream buffers, drinking water well setbacks, septic drainfield setbacks, building setbacks, etc.)
- \_\_\_\_\_ Identification of any on-site or adjacent water bodies included on the Virginia 303(d) list of impaired waters
- \_\_\_\_\_ Current land use and location of existing and proposed roads, buildings, parking lots and other impervious areas
- \_\_\_\_\_ Location and description of any planned demolition of existing structures, roads, etc.
- \_\_\_\_\_ Proposed land use(s) with a tabulation of the percentage of surface area to be adapted to various uses, including but not limited to planned locations of utilities, roads, parking lots, stormwater management facilities, and easements
- \_\_\_\_\_ Location of existing and proposed utilities [e.g., water (including wells), sewer (including septic systems), gas, electric, telecommunications, cable TV, etc.] and easements
- \_\_\_\_\_ Earthwork specifications
- \_\_\_\_\_ Selection, location and design of both structural and non-structural stormwater control measures, including maintenance access and limits of disturbance
- \_\_\_\_\_ Storm drainage plans for site areas *not* draining to any BMP(s)
- \_\_\_\_\_ Location of existing and proposed conveyance systems, such as storm drains, inlets, catch basins, channels, swales, and areas of overland flow, including grades, dimensions, and direction of flow
- \_\_\_\_\_ Final drainage patterns and flow paths
- \_\_\_\_\_ Location of floodplain/floodway limits and relationship of site to upstream and downstream properties and drainage systems
- \_\_\_\_\_ Location of all contributing drainage areas and points of stormwater discharge, receiving surface waters or karst features into which stormwater discharges, the pre-development and post-development conditions for drainage areas, and the potential impacts of site stormwater on adjoining parcels
- \_\_\_\_\_ Location and dimensions of proposed channel modifications, such as bridge or culvert crossings
- \_\_\_\_\_ Final stabilization and landscaping plans

#### **7. Hydrologic and hydraulic analysis, including the following:**

- \_\_\_\_\_ Site map with locations of design points and drainage areas (size in acres) for runoff calculations
- \_\_\_\_\_ Identification and calculation of stormwater site design credits, if any apply
- \_\_\_\_\_ Estimates of unified stormwater sizing criteria requirements
- \_\_\_\_\_ Time of concentration (and associated flow paths)
- \_\_\_\_\_ Imperviousness of the entire site and each drainage area
- \_\_\_\_\_ NRCS runoff curve numbers or volumetric runoff coefficients
- \_\_\_\_\_ A hydrologic analysis for the existing (pre-development) conditions, including runoff rates, volumes, and velocities, showing the methodologies used and supporting calculations
- \_\_\_\_\_ A hydrologic analysis for the proposed (post-development) conditions, including runoff rates, volumes, and velocities, showing the methodologies used and supporting calculations
- \_\_\_\_\_ Hydrologic and hydraulic analysis of the stormwater management system for all applicable design storms
- \_\_\_\_\_ Pollution load and load reduction requirements and calculations

- \_\_\_\_\_ Final good engineering and sizing calculations for stormwater control measures, including contributing drainage areas, storage, and outlet configurations, verifying compliance with the water quality and water quantity requirements of the regulations
- \_\_\_\_\_ Stage-discharge or outlet rating curves and inflow and outflow hydrographs for storage facilities
- \_\_\_\_\_ Final analysis of the potential downstream impacts/effects of the project, where necessary
- \_\_\_\_\_ Downstream analysis, where detention is proposed
- \_\_\_\_\_ Dam safety and breach analysis, where necessary

**8. Representative cross-section and profile drawings and details of stormwater control measures and conveyances which include the following:**

- \_\_\_\_\_ Existing and proposed structural elevations (e.g., inverts of pipes, manholes, etc.)
- \_\_\_\_\_ Design water surface elevations
- \_\_\_\_\_ Structural details of BMP designs, outlet structures, embankments, spillways, grade control structures, conveyance channels, etc.

**9. \_\_\_\_\_ Applicable construction and material specifications, including references to applicable material and construction standards (ASTM, etc.)**

**10. \_\_\_\_\_ Erosion and sediment control plan that, at a minimum, meets the requirements outlined in the Virginia Erosion and Sediment Control Regulations and Handbook**

**11. \_\_\_\_\_ Landscaping plans for stormwater control measures and any site reforestation or revegetation**

**12. Operations and maintenance plan/agreement that includes the following:**

- \_\_\_\_\_ Name, legal address and phone number of the party or parties responsible for long-term maintenance activities
- \_\_\_\_\_ Description and schedule of maintenance tasks
- \_\_\_\_\_ Identification/description of the source of funding to support maintenance activities
- \_\_\_\_\_ Description of access and safety issues
- \_\_\_\_\_ Procedures for testing and disposal of sediments, if required
- \_\_\_\_\_ Right-of-entry authorization for local government inspections/repairs, as needed

**13. \_\_\_\_\_ Evidence of acquisition of all applicable local and non-local permits**

**14. \_\_\_\_\_ Waiver/exception requests**

**15. \_\_\_\_\_ Evidence of acquisition of all necessary legal agreements (e.g., easements, covenants, land trusts, etc.)**

**16. \_\_\_\_\_ Applicable supporting documents and studies (e.g., infiltration tests, geotechnical investigations, TMDLs, flood studies, etc.)**

**17. \_\_\_\_\_ Other required permits**